

Listing of the Claims

A complete listing of the claims with proper claim identifiers is set forth below.

1. (Currently amended). An integrated read-only memory, comprising:
 ~~having~~ selection transistors, each selection transistors having a drain connection[[,]];
 ~~having~~ an electrode for feeding a voltage or a current[[,]];
 ~~having~~ a layer between the drain connections and the electrode electrically linking the drain connections to the electrode, the electrical resistance of which the layer can be changed through ~~the effect of~~ a configuration voltage or a configuration current[[,]];
 ~~having~~ a source connection per selection transistor[[,]]; and
 ~~having~~ a bit line that is electrically connected to at least one source connection;
 ~~in which the layer is formed as a common layer for linking the drain connections to the electrode, and~~
 ~~in which the electrical resistance of the layer can be changed locally.~~
2. (Currently amended). The read-only memory ~~as claimed in~~ of claim 1, in ~~which~~ wherein the resistance of the layer can be switched over.
3. (Currently amended). The read-only memory ~~as claimed in~~ of claim 1 ~~or 2~~, in ~~which~~ wherein the resistance of the layer can be switched over between two resistance characteristic curves.
4. (Currently amended). The read-only memory of ~~as claimed in one of the preceding claims 1,~~ further comprising:
 ~~having~~ a read voltage applied to the layer or a read current fed to the layer within a defined voltage or current range in a read Operation of the read-only memory, and
 ~~having~~ a configuration voltage or a configuration current outside the voltage or current range provided for the read Operation in a configuration operation of the read-only memory.

5. (Currently amended). The read-only memory of ~~as claimed in one of the~~ preceding claims 1, wherein the read-only memory ~~which~~ is designed as a flash memory.

6. (Currently amended). The read-only memory of ~~as claimed in one of the~~ preceding claims 1, ~~in which~~ wherein the selection transistors are arranged in an array.

7. (Currently amended). The read-only memory ~~as claimed in one of claims 1 to 6~~, ~~in which~~ wherein the bit line is connected to a decoder circuit.

8. (Currently amended). The read-only memory ~~as claimed in one of claims 1 to 7~~, ~~in which~~ wherein the bit line is accessible for an external connection.

9. (Currently amended). The read-only memory of ~~as claimed in one of the~~ preceding claims 1, further comprising:

having a gate connection per selection transistor, and

having a word line that is electrically connected to at least one gate connection.

10. (Currently amended). The read-only memory ~~as claimed in~~ of claim 9, ~~in which~~ wherein the word line is connected to a decoder circuit.

11. (Currently amended). The read-only memory ~~as claimed in~~ of claim 9 ~~or claim 10~~, ~~in which~~ wherein the word line is accessible for an external connection.

12. (Currently amended). The read-only memory of ~~as claimed in one of the~~ preceding claims 1, ~~in which~~ wherein the selection transistors have a planar construction in the substrate.

13. (Currently amended). The read-only memory ~~as claimed in one of claims 1 to 11~~, ~~in which~~ wherein the selection transistors have a vertical construction in the Substrate.

14. (Currently amended). The read-only memory of ~~as claimed in one of the~~ preceding claims 1, ~~in which~~ wherein the layer is formed as a molecular layer.

15. (Currently amended). The read-only memory ~~as claimed in~~ of claim 14, in ~~which~~ wherein the layer contains rotaxane.

16. (Currently amended). The read-only memory ~~as claimed in~~ of claim 14, in ~~which~~ wherein the layer contains catenane.

17. (Currently amended). The read-only memory ~~as claimed in~~ of claim 14, in ~~which~~ wherein the layer contains a bispyridinium compound.

18. (Currently amended). The read-only memory ~~as claimed in one of claims 1 to 13, in which~~ wherein the layer is formed as a dielectric.

19. (Currently amended). The read-only memory ~~as claimed in~~ of claim 18, in ~~which~~ wherein the layer contains SrZrO_3 .

20. (Currently amended). The read-only memory ~~as claimed in one of claims 1 to 13, in which~~ wherein the layer is formed as a polymer.

21. (Currently amended). The read-only memory ~~as claimed in~~ of claim 20, in ~~which~~ wherein the layer contains 3-nitrobenzal malonitrile, 1,4-phenylenediamine complex.

22. (Currently amended). The read-only memory ~~as claimed in~~ of claim 20, in ~~which~~ wherein the layer contains a chalcogenide compound.

23. (Currently amended). A method for operating an integrated read-only memory comprising selection transistors, each selection transistors having a drain connection; an electrode for feeding a voltage or a current; a layer between the drain connections and the electrode electrically linking the drain connections to the electrode, the electrical resistance of the layer can be changed through a configuration voltage or a configuration current; a source connection per selection transistor; and a bit line that is electrically connected to at least one source connection ~~as claimed in one of the preceding claims, the method comprising:~~

applying, in which in a read operation, a read voltage or a read current within a defined voltage or current range ~~is applied to the layer~~[[.]]; and

~~in which applying~~, in a configuration operation, a configuration voltage or a configuration current outside the voltage or current range provided for the read operation ~~is applied~~ to the layer.

24. (Currently amended). A method for producing an integrated read-only memory, the method comprises:

~~in which producing~~ an array of selection transistors ~~is produced using CMOS technology~~, each selection transistors transistor having a drain contact ~~in which drain contacts of the selection transistors are led to the surface of the arrangement;~~

arranging an electrode;

~~in which providing~~ a layer is deposited between the drain connections and the electrode electrically linking the drain connections to the electrode, ~~the~~ whose electrical resistance of the layer can be changed through ~~the effect of~~ a configuration voltage or a configuration current, ~~it being possible for the electrical resistance of the layer to be changed locally;~~

~~in which an electrode is arranged above the layer;~~

~~in which forming~~ a source connection ~~is formed per selection transistor~~[[,]]; and

~~in which forming~~ a bit line ~~is formed~~ which is electrically connected to at least one source connection,

~~in which the layer is formed as a common layer for linking the drain connections to the electrode.~~

25. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in~~of claim 24, ~~in which~~ wherein the layer is deposited as a common layer for linking the drain connections to the electrode above the selection transistors.

26. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in~~ of claim 24 ~~or claim 25~~, ~~in which~~ wherein the selection transistors are produced in a front end process.

27. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in one of claims 24 to 26~~, ~~in which~~ wherein the layer is deposited in a back end process.

28. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in one of claims 24 to 27, in which~~ wherein the selection transistors are constructed in planar fashion in the substrate.

29. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in one of claims 24 to 27, in which~~ wherein the selection transistors are constructed vertically in the substrate.

30. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in one of claims 24 to 29, in which~~ wherein the layer is formed as a molecular layer.

31. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in of claim 30, in which~~ wherein the layer contains rotaxane.

32. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in of claim 30, in which~~ wherein the layer contains catenane.

33. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in of claim 30, in which~~ wherein the layer contains a bispyridinium compound.

34. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in one of claims 24 to 29, in which~~ wherein the layer is formed as a dielectric.

35. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in of claim 34, in which~~ wherein the layer contains SrZrO_3 .

36. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in one of claims 24 to 29, in which~~ wherein the layer is formed as a polymer.

37. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in~~ of claim 36, ~~in which~~ wherein the layer contains a 3-nitrobenzal malonitrile, 1.4-phenylenediamine complex.

38. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in one of claims 24 to 29, in which~~ wherein the layer contains a chalcogenide compound.

39. (New). The method for producing an integrated of claim 24, wherein the selection transistors are produced using CMOS technology.